

CARDINAL FUNCTIONS AND INTEGRAL FUNCTIONS

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Abstract. This paper presents the correspondences of the eccentric mathematics of cardinal and integral functions and centric mathematics, or ordinary mathematics. Centric functions will also be presented in the introductory section, because they are, although widely used in undulatory physics, little known.

In centric mathematics, cardinal sine and cosine are defined as well as the integrals. Both circular and hyperbolic ones. In eccentric mathematics, all these central functions multiplies from one to infinity, due to the infinity of possible choices where to place a point. This point is called eccenter $S(s, \varepsilon)$ which lies in the plane of unit circle $UC(O, R = 1)$ or of the equilateral unity hyperbola $HU(O, a = 1, b = 1)$. Additionally, in eccentric mathematics there are series of other important special functions, as $aex\theta$, $bex\theta$, $dex\theta$, $rex\theta$, etc. If we divide them by the argument θ , they can also become cardinal eccentric circular functions, whose primitives automatically become integral eccentric circular functions.

All supermatematics eccentric circular functions (SFM-EC) can be of variable excentric θ , which are continuous functions in linear numerical eccentricity domain $s \in [-1, 1]$, or of centric variable α , which are continuous for any value of s . This means that $s \in [-\infty, +\infty]$.

Keywords and phrases: C-Circular , CC- C centric, CE- C Eccentric, CEL-C Elevated, CEX-C Exotic, F-Function, FMC-F Centric Mathematics, M- Matematics, MC-M Centric, ME-M Excentric, S-Super, SM- S Matematics, FSM-F Supermatematics FSM-CE- FSM Eccentric Circulars, FSM-CEL- FSM-C Elevated, FSM-CEC- FSM-CE- Cardinals, FSM-CELC- FSM-CEL Cardinals

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